

6th ETV CCEP Stakeholders Meeting Summary

September 20, 1999

Dallas Convention Center, Dallas, Texas

Attendees

Stakeholders

- Loren Anderson, Pittsburgh Paint Group (PPG), Inc.
- George Bryant, Briggs & Stratton
- Bob Carter, Waste Reduction Resource Center (EPA)
- Lyle Gilbert, MetoKote
- Rick Klein, Iowa Waste Reduction Center
- Michael Kosusko, U.S. EPA/NRMRL
- Larry Melgary, Northern Coatings and Chemical Company, Chemical Coaters Association International
- Eugene Praschan, Environmental and Coatings Consultant (Automotive, ASTM)
- Alex Ross, RadTech International
- Dave Salman, U.S. EPA/OAQPS/Coatings and Consumer Products Group
- Brian Schweitzer, Concurrent Technologies Corporation

Observers

- Jane Bailey, Industrial Paint & Powder Magazine
- Sarah Bauer, U.S. EPA/Office of Research and Development
- Dean Cornstubble, Research Triangle Institute
- Dan Davis, Industrial Paint & Powder Magazine
- Norman Dyer, EPA Region VI
- Rhea Jones, U.S. EPA/OAQPS/Coatings and Consumer Products Group
- Jim Voytko, CTC
- Steve Williams, ICF Consulting
- Dennis R. Zak, Sr., Briggs & Stratton

Meeting Summary

Mr. Brian Schweitzer opened the meeting with welcomes and introductions of the stakeholders and observers. He reviewed the agenda and highlighted the key objectives which were (1) to come to a decision on liquid coatings testing with respect to cure emissions and how to proceed, and (2) how to use the Coating '99™ conference to promote ETV. Mr. Schweitzer reminded stakeholders to review and update their electronic mail addresses so that they could be added to distribution lists for progress updates.

Opening Presentations

Ms. Sarah Bauer, the ETV outreach coordinator, presented on the overall ETV program. In Ms. Bauer's presentation, the 12 ETV pilots were reviewed pointing out that three pilots, P2 Metal Finishing Technologies, Source Water Quality Protection Technologies, and Wet Weather Flow Technologies, were added in 1998. Ms. Bauer emphasized that copies of test plans, reports, and verification statements would be downloadable from the ETV Web site once they became available. Ms. Bauer said that the stakeholders had played a key role in the success of the ETV program, providing critical input and feedback to the overall ETV process. She noted that stakeholder retention was high once the pilots got off the ground. Ms. Bauer reviewed statistics related to stakeholder involvement in the ETV program and highlighted the costs per year per pilot.

Ms. Bauer said that the vendors participating in the ETV process represent most of the United States. She said vendors felt that the ETV process was difficult to assess with respect to the impact on sales of their technologies, yet the process was helpful in marketing their products. They also commented that there was adequacy of industry stakeholder representation in the development and review process. However, the most frequent comment from vendors was that the verification process took too long to produce results (six months to a year).

Ms. Bauer pointed out that the pollution prevention pilots were initially met with a poor response mainly because of a lack of understanding of the area of pollution prevention. Mr. Schweitzer proceeded to explain this by saying that pollution prevention is a broad topic area and that most of the vendors participating took a long time to come to an agreement on test plans because of the broadness of the topic area. He said that the vendors considering the pollution prevention pilots continue to have an increased interest in the ETV program, but were waiting to see what would happen and how it would benefit their marketing efforts.

Mr. Jim Voytko stated that the same concern existed in the metal finishing pilot. He said that the problem in communicating pollution prevention was that the ETV program is not testing a product, such as is the case in monitoring, but that you have to test an entire process because pollution prevention is based on the concept of a process and not on a single product.

With respect to the end of the ETV pilot period, some concern was raised amongst the stakeholders that the end of the ETV pilot period for the ETV program meant that the ETV pilots would end. However, Mr. Kosusko and Ms. Bauer clarified by saying that, although the pilots were scheduled to end in October 2000, ETV would continue beyond that point since it would have a greater percentage of industry funding than when it first began in 1997. At this point, Mr. Kosusko emphasized that the testing of five or six liquid coatings should be complete by March of 2000 in order to produce test reports and verification statements by October 2000. Such testing is required to make a good case for continuing ETV CCEP funding in the ETV report to Congress.

Next, Mr. Brian Schweitzer presented on the overview of the ETV CCEP, reviewing the scope of the project, the strategic operating principles, the process of how program tests

are conducted, and the benefits to vendors. The discussion focused on Mr. Schweitzer's statement that vendors had to concur with the verification statement on their technology. Mr. Dave Salman asked if this was really necessary. Mr. Schweitzer clarified by saying that if the vendors do not concur with the verification statement, then the verification report would still be published, but would not be posted on the ETV Web site.

There was also discussion about the ETV program and its areas of focus. Mr. Schweitzer clarified that the areas of focus were initially on paints and not on coatings in general. This is because the ETV program has been approached by ink and other coating-type vendors for participation.

Summary of Other Major Topics of Discussion

High-Volume, Low-Pressure (HVLP) Spray Gun Tests. Mr. Schweitzer reviewed the four HVLP spray gun tests. Mr. Schweitzer noted that the verification factors should be reviewed by the stakeholders because these are the key results of ETV testing. Mr. Kosusko said that preliminary copies of the test reports for three DeVilbiss HVLP guns tested were available to the stakeholders for review. He added that the fourth test report for Sharpe Manufacturing was approximately one week behind the other test reports.

Test Protocol. The major comment made by most vendors on the test protocol was that the protocol overemphasizes quality assurance (QA). They felt that the data presented in the verification statements were not as important as the overall objective, which is to verify that the technology works. Even though QA was the most comprehensive section of the test protocol, Mr. Schweitzer said that no comments were made on the QA section by the HVLP vendors. Mr. Gene Praschan asked if revisiting the test protocol would be worthwhile. Mr. Schweitzer said that this would be addressed at a future ETV program meeting.

Military Specifications. Mr. Bob Carter mentioned that there has to be a mechanism in the ETV process for addressing military specifications. He said that the government's shift to private contractors performing the work rather than civil service personnel creates another problem. Because a lot of environmental work occurs at depots, bases, forts, etc., Mr. Carter said there needs to be a mechanism in the contracting process to address military specifications with respect to environmental technologies, in addition to making necessary changes to the technology transfer process on new products. Mr. Schweitzer said that Jeff Marqusee, the Program Manager for the Environmental Security Technology Certification Program (ESTCP), was helping ETV with this issue.

Department of Defense (DoD) Stakeholder. A question was raised by Dave Salman, who asked who the DoD stakeholder was for this ETV pilot. Mr. Kosusko said that it was Kevin Kovalski with the Naval Warfare Center. Mr. Salman said it was important to have a representative from DoD, especially from the Navy since there has been such great activity in anti-fouling paints.

Coatings Regulatory Update

Mr. Kosusko introduced Mr. Dave Salman who provided a brief update on EPA regulations related to paints and coatings. Mr. Salman reviewed the MACT standard process and schedule for the various coating categories. Mr. Salman pointed out that the EPA coatings web site has been inactive for a while because Congress is concerned about how Federal web sites were being used.

The major discussion topic was raised by Mr. Larry Melgarey who was concerned about what EPA's emissions limits were going to be 10 years in the future. Mr. Salman said the MACT floors for metal, plastic, wood, and automotive refinishing, although focusing on HAPs only, were not complete. The major complication in the rulemaking process for determining MACT floors was that there are big differences in the various types of coating processes.

Cure Emissions and Status of the Curing Emissions Methods

Cure emissions, for purposes of this ETV pilot, are defined as those HAPs emissions generated during the cure of a coating and not those HAPs present in the coatings as applied. Mr. Kosusko said that OAQPS has had extensive discussions with the research laboratory (APPCD). Since regulatory test methods and the research test method, as developed by APPCD, will not be available for a while and ETV CCEP must publish verification statements on liquid coatings soon, Mr. Kosusko said that the ETV CCEP pilot may need to consider dropping cure emissions testing from liquid coatings verification at the present time.

Mr. Kosusko then reviewed the cure emissions method status and the three test types available. The three test types are (1) Method 24, (2) Method 311, and (3) cure emissions (a.k.a., Method 311, Appendix A, which is not yet developed). Method 24 is a method specifically designed to quantify VOCs from coatings with low to moderate weight percent solids. Method 311 is a method designed to quantify HAPs from solvent-borne and water-borne coatings. At this point, Mr. Salman said that the ASTM D-1 committee is investigating cure emissions methods for formaldehyde.

Mr. Kosusko then said that the cure emissions test method which the EPA NRMRL APPCD has been working on was not fully developed. This method was introduced to the stakeholders by Jimmy Pau at last April's stakeholder meeting. (A draft copy of the proposed method was available upon request for stakeholders to review.) The goals of the cure emissions method design are to:

- Be suitable for all paint types (water-borne, solvent-borne, powders and other 100 percent solids, and UV-curable),
- Analyze a broad range of HAPs,
- Take multiple samples (6 or 12) at a time,
- Test three coatings per day,
- Use commercially available testing equipment,
- Be tested at temperatures up to 250°C.

Mr. Kosusko said that a test method is scheduled to be developed for high-solids containing solvent-borne coatings by January 2000 and would be further developed for waterborne coatings by May 2000. Mr. Kosusko said that it was critical for the pilot to conduct and finish testing on several liquid coatings by March 31st in order to meet the ETV time schedule. Based on the history of how long it takes to test, testing must start in early January to meet target dates.

With respect to cure temperature, several stakeholders said that using one temperature for testing will nullify the paint manufacturers' recommended cure temperatures for different paint types and may produce erroneous results since no two paints have the same cure temperature. They recommended using a variety of temperatures based on the recommended cure temperatures for each paint type. Mr. Salman said that it may be possible to put in an allowance for curing by specifying a cure temperature and making this flexible so that when the method becomes available later those being regulated can plug in a temperature. Mr. Kosusko then asked the stakeholders whether the pilot should consider cure emissions testing now since it will have a negative effect on the timing of verification of technologies since EPA is about one year away from full method development. The general consensus was that verification testing should not wait for availability of the method.

Discussion

Discussion about the cure emissions test method focused on concern about formaldehyde being an emission from curing since formaldehyde is a HAP and is a carcinogen at or above a content of 0.1 percent. Mr. Lyle Gilbert asked about what specific materials were of concern. He said that HAPs such as formaldehyde and methanol can be found in emissions from curing liquid and powder coatings. Mr. Salman said he doesn't know which products produce cure emissions of formaldehyde because the data is not available to prove otherwise. Mr. Praschan said that the coating suppliers would be best able to tell what components in the paint generate cure emissions of formaldehyde and methanol. However, Mr. Salman said that no one has offered to give EPA any data to work with to come to a resolution on this issue.

One stakeholder mentioned that EPA has a residual risk evaluation program built into the regulatory process. The way it works is that eight years after a rule is final, EPA is supposed to evaluate the rule to determine the risk that remains. If EPA cannot narrowly define the rules now because it does not know how much formaldehyde and/or methanol is being produced, it makes it difficult to include these issues. Cure emissions could be deferred for consideration in the residual risk evaluation process.

Mr. Praschan said that paint reformulation and emission controls impact the largest percentage of emissions and would produce the largest reduction in VOC and HAP emissions. Hence, it may not be worth it to implement a cure emissions method to determine the remaining cure volatiles. Mr. Praschan said that a placeholder could be put into the test protocol for cure emissions so that they could be considered in future testing. However, due to legal problems, one stakeholder said that a placeholder could not be

present in the test protocol because testing must be performed as described in the test protocol. One stakeholder said that a disclaimer on the cure emissions could be inserted without any legal problems.

Mr. Salman said OAQPS would move ahead on developing the coatings' rules because they had to. He did not believe it was worth it to figure out all of the aspects of the cure emissions test before proceeding with the verification testing of liquid coatings. He said it was better to mention the cure emissions method qualitatively in the test report while continuing to research the method. Mr. Kosusko also said that the cure emissions test method development would continue in APPCD.

Mr. Loren Anderson said that ETV tests known conditions for verification and recommended that testing be conducted with the existing emission test methods, while making sure that the verification statements list these tests. Mr. Schweitzer indicated that the vendors who have applied in the past were presented a list of test methods and quality performance tests. Since the ETV process is voluntary, he said that when the new cure emission test method becomes available new vendors could apply for ETV testing and be tested using this test method whereas past vendors would need to reapply.

Mr. Voytko said that the verification process on technologies should not drive the regulations because ETV is not a regulatory process. It is a performance-driven program and is not producing new information for regulations. Mr. Gilbert said that, from a user's point of view, cure emissions are useful to users in determining to what types of chemicals their workers might be exposed. Also, he said that products have advanced because of the EPA regulations. Mr. Gilbert said that environmental friendliness is also very useful to users. He felt that many users do not know that the ETV verification statements on environmentally friendly technologies exist.

Mr. Alex Ross asked what the interest of ETV was in liquid coatings testing and how it could be accomplished without providing a background on the chemistry of these coatings. Mr. Gilbert also asked if CTC had access to the chemistry data for ETV. Mr. Schweitzer said that they did not have access to the chemistry because specific formulas provided by the vendors were not fully disclosed, making it difficult to provide this kind of background in the test reports. Mr. Ross said that it would be premature to verify a product that is not controlling HAP emissions. However, Mr. Schweitzer said that the verification program verifies how a product performed and if it functioned properly. Mr. Ross said that in some instances coatings could be modified and claimed as the same product yet have higher emissions of a HAP. So, he said that the chemistry would have to be defined to avoid this potential conflict.

With respect to technologies, however, Mr. Ross proposed generic evaluation testing of technologies. Mr. Voytko said that in the metal finishing ETV they may be looking at generic technologies and not specific products. He said the pilot is now reviewing the idea of verifying pollution prevention equipment.

Closing Statements

Mr. Kosusko asked the stakeholders present for advice on how to use the Coating '99™ conference to best connect with potential vendors. Mr. Gilbert said that personal contact with the exhibitors and talking with association representatives at the conference were the best ways to get names of potential vendors who might participate in the ETV program. However, Mr. Gilbert recommended that the ETV program develop a way to evaluate technologies within a two-week period to generate a range of performance values for that technology. The results of these kinds of evaluations would have been great selling tools at exhibitions such as the one here at Coating 99™. He said that people fear participating in the ETV process because they believe it would provide fuel for even tougher EPA regulations resulting in a detrimental effect on their technology.

Mr. Schweitzer then reviewed new topics that would be discussed at the next ETV stakeholder meeting. They were: (1) the Laser Touch™ test at Iowa, (2) additional HVLP testing, (3) supercritical CO₂ testing. One stakeholder mentioned a technology by a vendor who uses a powder/water system for coating various parts. The system supposedly does not produce any emissions. Mr. Schweitzer said that since the technology was not commercially available it would not be considered at this time for ETV testing.

Mr. Melgarey asked if spray gun cleaning was going to be included in the ETV CCEP pilot. He said that at the last stakeholder's meeting UV-curable cure coatings were identified as the number one priority area for evaluation. He also asked if other persons could be identified who may be willing to serve as stakeholders in order to get their input on the ETV process for CCEP.

Next Meeting

Consensus was reached that the next stakeholder meeting would be held at the EPA Research Facility in Research Triangle Park, NC, in March 2000. Further details will be posted on the ETV Web site. Mr. Schweitzer said that the next meeting would be more like a workshop where vendors would be asked to present on their environmentally friendly technologies.
